Process Intensification through Microwave and Ultrasound Application

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Abstract

Chemists have always looked for synergism, that is, a combination of tools, reagents, or processes producing a larger effect than the sum of their individual effects. It is expected that in the future organic synthesis will undergo increased automation and require the construction of continuous-flow systems capable of rapid, efficient and scalable automated processes. In this context, our aim is to show how two of the most important, green activation techniques (microwaves and power ultrasound), may be combined to provide a reliable and cost-effective strategy for an increasing number of synthetic transformations.